

Acronyms and Glossary



Winter on the refuge

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Acronyms

Acronym	Full Name
ACJV	Atlantic Coast Joint Venture
ADA	Americans with Disabilities Act
AHWP	Annual habitat work plan
AOI	Area of interest
AP	Atlantic population (Canada geese)
ARPA	Archeological Resources Protection Act of 1960
ATV	All-terrain vehicle
BBS	Breeding bird survey
BCC	Birds of conservation concern
BCR	Bird Conservation Region
BMP	Best Management Practice
BP	Before present
CAA	Clean Air Act
CATEX	Categorical exclusion
CBI	Consensus Building Institute
CD	Compatibility determination
CCMP	Comprehensive conservation and management plan
CCP	Comprehensive conservation plan
CCSP	U.S. Climate Change Science Program
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMR	Code of Massachusetts Regulations
CWA	Clean Water Act
CVI	Coastal vulnerability index
CWCS	Comprehensive wildlife conservation strategy
DDT	Dichlorodiphenyltrichloroethane (pesticide)
DO	Dissolved oxygen
EA	Environmental assessment
EE	Environmental education
EIS	Environmental impact statement
ENSP	Endangered and Nongame Species Program

Acronyms and Abbreviations

Acronym	Full Name
EOD	Explosive ordnance disposal
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FONSI	Finding of no significant impact
FTE	Full-time equivalent
FUDS	Formerly used defense site
FWS	U.S. Fish and Wildlife Service
FY	Fiscal year
GCN	Greatest conservation need
GHG	Greenhouse gas
GIS	Geographic information system
GS	General schedule
HMP	Habitat management plan
IBA	Important Bird Area
IMP	Inventory and monitoring plan
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated pest management
IPMP	Integrated pest management plan
LCC	Landscape conservation cooperative
LE	Law Enforcement
LWCF	Land and Water Conservation Fund
LPP	Land protection plan
MA DEP	Massachusetts Department of Environmental Protection
MANEM	Mid-Atlantic/New England/Maritimes region
MAPS	Monitoring avian productivity and survivorship
MBCF	Migratory Bird Conservation Fund
MBTA	Migratory Bird Treaty Act
MA DFW or MassWildlife	Massachusetts Division of Fisheries and Wildlife
MEC	Munitions and explosives of concern
MHW	Mean high water

Acronym	Full Name
MLW	Mean low water
MOA	Memorandum of agreement
MOU	Memorandum of understanding
MRA	Minimum requirement analysis
MRDG	Minimum requirements decision guide
MWWS	Mid-winter waterfowl survey
NAAQS	National Ambient Air Quality Standards
NABCI	North American Bird Conservation Initiative
NAC	North Atlantic coast
NAGPRA	Native American Graves Protection and Repatriation Act
NAI	National Association for Interpretation
NAS	National Audubon Society
NAWCP	North American Waterbird Conservation Plan
NAWMP	North American Waterfowl Management Plan
NEPA	National Environmental Policy Act of 1969
NGO	Non-governmental organization
NHESP	Natural Heritage and Endangered Species Program
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NOA	<i>Federal Register</i> Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOI	<i>Federal Register</i> Notice of Intent
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWR	National Wildlife Refuge
NWLON	National Water Level Observation Network
NWPS	National Wilderness Preservation System
NWRS	National Wildlife Refuge System
ORV	off-road vehicle
ORW	Outstanding resource waters

Acronyms and Abbreviations

Acronym	Full Name
PARC	Partners in Amphibian and Reptile Conservation
PCB	Polychlorinated biphenyl (pesticide)
PDA	Personal digital assistant
PIF	Partners in Flight
RNA	Research natural area
RONs	Refuge Operations Needs System
SAMMS	Service Assist Maintenance System
SAMP	Special area management plan
SGNC	Species of greatest conservation need
SET	Salt marsh elevation table
SHC	Strategic habitat conservation
SHPO	State Historic Preservation Officer
SLAMM	Sea level affecting marshes model
SUP	Special use permit
SWG	State Wildlife Grant Programs
SWQS	Surface water quality standards
THPO	Tribal Historic Preservation Officer
TMDL	Total maximum daily load
TNC	The Nature Conservancy
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VC	Visitor center
WCS	Water control structure
WG	Wage grade
WMA	Watershed management area
WSA	Wilderness study area
WHSRN	Western Hemispheric Shorebird Reserve Network

Glossary

accessibility	the state or quality of being easily approached or entered, particularly as it relates to complying with the Americans With Disabilities Act (ADA)
accessible facilities	structures accessible for most people with disabilities without assistance; facilities that meet Uniform Federal Accessibility Standards; ADA-compliant parking lots, trails, pathways, ramps, picnic and camping areas, restrooms, boating facilities (docks, piers, gangways), fishing facilities, playgrounds, amphitheaters, exhibits, audiovisual programs, and wayside sites
adaptation	adjustment to environmental conditions
adaptive management	<p>focuses on learning and adapting, through partnerships of managers, scientists, and other stakeholders who learn together how to create and maintain sustainable ecosystems</p> <p>Adaptive management:</p> <ul style="list-style-type: none"> • helps science managers maintain flexibility in their decisions, knowing that uncertainties exist, and provides managers with the latitude to change direction • will improve understanding of ecological systems to achieve management objectives • is about taking action to improve progress toward desired outcomes <p>(Source: Williams, B. K., R. C. Szaro, and C. D. Shapiro. 2007. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC.)</p>
aggregate	many parts considered together as a whole
agricultural land	non-forested land (now or recently orchards, pastures, or crops)
alternative	a reasonable way to fix an identified problem or satisfy a stated need [40 CFR 1500.2 (cf. “management alternative”)]
appropriate use	<p>a proposed or existing use on a refuge that meets at least one of the following three conditions:</p> <ul style="list-style-type: none"> • the use is a wildlife-dependent one • the use contributes to fulfilling the refuge purpose(s), the System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the National Wildlife Refuge System Improvement Act was signed into law • the use has been determined appropriate as specified in section 1.11 of that act
approved acquisition boundary	a project boundary that the Director of the U.S. Fish and Wildlife Service approves upon completion of the planning and environmental compliance process. An approved acquisition boundary only designates those lands which the Service has authority to acquire or manage through various agreements. The approval of an acquisition boundary does not grant the Service jurisdiction or control over lands within the boundary, and it does not make lands within the refuge boundary part of the National Wildlife Refuge System. Lands do not become part of the System until the Service buys them or they are placed under an agreement that provides for their management as part of the System.

anadromous fish	from the Greek, literally “up-running;” fish that spend a large portion of their life cycle in the ocean and return to fresh water to breed
aquatic	growing in, living in, or dependent upon water
aquatic barrier	any obstruction to fish passage
area of biological significance	see “special focus area”
avian	of or having to do with birds
avifauna	all birds of a given region
barrens	a colloquial name given to habitats with sparse vegetation or low agricultural productivity
barrier	see “aquatic barrier”
basin	the land surrounding and draining into a water body (cf. “watershed”)
benthic	living at, in, or associated with structures on the bottom of a body of water
best management practices	land management practices that produce desired results [N.B. Usually describing forestry or agricultural practices effective in reducing nonpoint source pollution, like reseeding skidder trails or not storing manure in a flood plain. In their broader sense, practices that benefit target species.]
biological diversity or biodiversity	the variety of life and its processes; includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur
biological integrity	biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms, and communities
bird conservation region	regions that encompass landscapes having similar bird communities, habitats, and resource issues; used as an administrative tool to aid in the conservation of birds and their habitats
biota	the plant and animal life of a region
breeding habitat	habitat used by migratory birds or other animals during the breeding season
buffer species	alternate prey species exploited by predators when a more preferred prey is in relatively short supply, e.g., if rabbits are scarce, foxes will exploit more abundant rodent populations
buffer zones	land bordering and protecting critical habitats or water bodies by reducing runoff and nonpoint source pollution loading; areas created or sustained to lessen the negative effects of land development on animals, plants, and their habitats

candidate species	plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities
categorical exclusion (CE, CX, CATEX)	pursuant to the National Environmental Policy Act (NEPA), a category of Federal agency actions that do not individually or cumulatively have a significant effect on the human environment [40 CFR 1508.4]
CFR	the Code of Federal Regulations
community	the locality in which a group of people resides and shares the same government
community type	a particular assemblage of plants and animals, named for its dominant characteristic
compatible use	“The term ‘compatible use’ means a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.”—National Wildlife Refuge System Improvement Act of 1997 [Public Law 105-57; 111 Stat. 1253]
compatibility determination	a required determination for wildlife-dependent recreational uses or any other public uses of a refuge
comprehensive conservation plan	(CCP) mandated by the 1997 Refuge Improvement Act, a document that provides a description of the desired future conditions and long-range guidance for the project leader to accomplish purposes of the Refuge System and the refuge. CCPs establish management direction to achieve refuge purposes. [P.L. 105-57; FWS Manual 602 FW 1.4]
concern	see “issue”
connectivity	community occurrences and reserves have permeable boundaries and are subject to inflows and outflows from the surrounding landscape. Connectivity in the selection and design of nature reserves relates to the ability of species to move across the landscape to meet basic habitat requirements. Natural connecting features within the ecoregion may include river channels, riparian corridors, ridgelines, or migratory pathways
conservation	managing natural resources to prevent loss or waste [N.B. Management actions may include preservation, restoration, and enhancement.]
conservation agreements	written agreements among two or more parties for the purpose of ensuring the survival and welfare of unlisted species of fish and wildlife or their habitats or to achieve other specified conservation goals. Participants voluntarily commit to specific actions that will remove or reduce threats to those species.
conservation easement	a non-possessory interest in real property owned by another imposing limitations or affirmative obligations with the purpose of returning or protecting the property’s conservation values
conservation status	assessment of the status of ecological processes and the viability of species or populations in an ecoregion

consultation	a type of stakeholder involvement in which decision-makers ask stakeholders to comment on proposed decisions or actions
cooperative agreement	a usually long-term habitat protection action, which can be modified by either party, in which no property rights are acquired. Lands under a cooperative agreement do not necessarily become part of the National Wildlife Refuge System.
critical habitat	according to U.S. Federal law, the ecosystems upon which endangered and threatened species depend
cultural resources	these consist of above-ground, architectural resources (structures), below-ground, archaeological resources (Native American or historical sites), artifacts, and other resources to which the criteria of eligibility for listing in the National Register of Historic Places may be applied. These resources are subject to protection under the National Historic Preservation Act (NHPA) and other applicable laws and regulations.
cultural resource overview	<p>a comprehensive document prepared for a field office that discusses, among other things, project prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement of how program objectives should be met and conflicts resolved</p> <p>[N.B. An overview should reference or incorporate information from a field office's background or literature search described in section VIII of the Cultural Resource Management Handbook (FWS Manual 614 FW 1.7).]</p>
database	a collection of data arranged for ease and speed of analysis and retrieval, usually computerized
degradation	the loss of native species and processes due to human activities so that only certain components of the original biodiversity persist, often including significantly altered natural communities
designated wilderness area	an area designated by Congress as part of the National Wilderness Preservation System [FWS Manual 610 FW 1.5 (draft)]
desired future condition	the qualities of an ecosystem or its components that an organization seeks to develop through its decisions and actions
digitizing	the process of converting maps into geographically referenced electronic files for a geographic information system (GIS)
distribution pattern	the overall pattern of occurrence for a particular conservation target; in ecoregional planning projects, it is often referred to as the relative proportion of the target's natural range occurring within a given ecoregion (e.g. endemic, limited, widespread, disjunct, peripheral)
disturbance	any relatively discrete event in time that disrupts ecosystem, community, or population structure, and changes resources, substrate availability, or the physical environment
donation	a citizen or group may wish to give land or interests in land to the Service for the benefit of wildlife, aside from the cost factor, these acquisitions are not different from any other means of land acquisition; gifts and donations have the same planning requirements as purchases

early successional	species, assemblages, structures, and processes associated with pioneering natural communities that have recently experienced significant disturbance
ecological integrity	native species populations in their historic variety and numbers naturally interacting in naturally structured biotic communities. For communities, integrity is governed by demographics of component species, intactness of landscape-level ecological processes (e.g., natural fire regime), and intactness of internal community processes (e.g., pollination)
ecological processes	a complex mix of interactions among animals, plants, and their environment that ensures maintenance of an ecosystem's full range of biodiversity; examples include population and predator-prey dynamics, pollination and seed dispersal, nutrient cycling, migration, and dispersal
ecoregion	a territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems
ecosystem	a natural community of organisms interacting with its physical environment, regarded as a unit
ecotourism	visits to an area that maintains and preserves natural resources as a basis for promoting its economic growth and development
edge effect	the phenomenon whereby edge-sensitive species are negatively affected near edges by factors that include edge-generalist species, human influences, and abiotic factors associated with habitat edges. Edge effects are site-specific and factor-specific, and have variable depth effects into habitat fragments
electric fence	made by Premier 1, powered by a solar panel connected to a 12-volt battery; each section of fencing is 150 feet long, 4 feet high and supported with doubled spiked PVC post
emergent wetland	wetlands dominated by erect, rooted, herbaceous plants
endangered species	a federally or state-listed protected species in danger of extinction throughout all or a significant portion of its range
endemic	a species or race native to a particular place and found only there
environment	the sum total of all biological, chemical, and physical factors to which organisms are exposed
environmental assessment	(EA) a public document that discusses the purpose and need for an action and its alternatives, and provides sufficient evidence and analysis of its impacts to determine whether to prepare an environmental impact statement or a finding of no significant impact (q.v.) [cf. 40 CFR 1508.9]
environmental education	curriculum-based education aimed at producing a citizenry that is knowledgeable about the biophysical environment and its associated problems, aware of how to help solve those problems, and motivated to work toward solving them
environmental health	the composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment

environmental impact statement	(EIS) a detailed, written analysis of the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources [cf. 40 CFR 1508.11]
estuaries	deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from land
eutrophic	a body of water (lake, pond, etc.) rich in mineral and organic nutrients that supports an abundance of plant life, particularly algae, which reduces the dissolved oxygen content and may cause the extinction of other organisms
evaluation	examination of how an organization's plans and actions have turned out, and adjusting them for the future
exclosure	consisting of 1.3 m tall galvanized wire fencing, with a 5×10 cm mesh size and a 10 m circumference, exclosures are buried at least 20 cm into the sand and secured with rebar posts woven through the fencing and hammered into the ground to, at, or below the top of the fencing; the top of exclosures are covered with polypropylene, 2 cm mesh nylon bird netting
exotic species	a species that is not native to an area and has been introduced intentionally or unintentionally by humans; not all exotics become successfully established
extinction	the termination of any lineage of organisms, from subspecies to species and higher taxonomic categories from genera to phyla; extinction can be local, in which one or more populations of a species or other unit vanish but others survive elsewhere, or total (global), in which all the populations vanish
extirpated	status of a species or population that has completely vanished from a given area but that continues to exist in some other location
fauna	all animal life associated with a given habitat, country, area, or period
federal land	public land owned by the Federal Government, including national forests, national parks, and national wildlife refuges
federally listed species	a species listed either as endangered, threatened, or a species at risk (formerly, a "candidate species") under the Endangered Species Act of 1973, as amended
fee title acquisition	the acquisition of most or all the rights to a tract of land; a total transfer of property rights with the formal conveyance of a title. While a fee-title acquisition involves most rights to a property, certain rights may be reserved or not purchased, including water rights, mineral rights, or use reservation (e.g., the ability to continue using the land for a specified time period, such as the remainder of the owner's life)
finding of no significant impact	(FONSI) supported by an environmental assessment, a document that briefly presents why a Federal action will have no significant effect on the human environment, and for which an environmental impact statement, therefore, will not be prepared [40 CFR 1508.13]
fire regime	the characteristic frequency, intensity, and spatial distribution of natural fires within a given ecoregion or habitat

flora	all the plants found in a particular place
floodplain	flat or nearly flat land that may be submerged by floodwaters; a plain built up or in the process of being built up by stream deposition
flyway	any one of several established migration routes of birds
focal species	a species that is indicative of particular conditions in a system (ranging from natural to degraded) and used as a surrogate measure for other species of particular conditions; an element of biodiversity selected as a focus for conservation planning or action. The two principal types of targets in conservancy planning projects are species and ecological communities
focus areas	see “special focus areas”
forest	land dominated by trees
fragmentation	the disruption of extensive habitats into isolated and small patches; fragmentation has two negative components for biota: the loss of total habitat area, and the creation of smaller, more isolated patches of remaining habitat
geographic information system	(GIS) a computerized system to compile, store, analyze, and display geographically referenced information; e.g., GIS can overlay multiple sets of information on the distribution of a variety of biological and physical features
grant agreement	the legal instrument used when the principal purpose of the transaction is the transfer of money, property, services, or anything of value to a recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute and substantial involvement between the Service and the recipient is not anticipated (cf. “cooperative agreement”) (Grants and Cooperative Agreement Act at 31 U.S.C. § 6305)
grassland	a habitat type with landscapes dominated by grasses
groundwater	water in the ground that is in the zone of saturation, from which wells and springs and groundwater runoff are supplied
habitat	the place or type of site where species and species assemblages are typically found or successfully reproduce [N.B. An organism’s habitat must provide all of the basic requirements for life, and should be free of harmful contaminants.]
habitat conservation	protecting an animal or plant habitat to ensure that the use of that habitat by the animal or plant is not altered or reduced
habitat fragmentation	the breaking up of a specific habitat into smaller, unconnected areas [N.B. A habitat area that is too small may not provide enough space to maintain a breeding population of the species in question.]
historic conditions	the composition, structure, and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgment, were present prior to substantial human-related changes to the landscape

hydrologic or flow regime	characteristic fluctuations in river flows
hydrology	the science of waters of the earth: their occurrences, distributions, and circulations; their physical and chemical properties; and their reactions with the environment, including living beings
impoundment	a body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier, which is used to collect and store water for future use
indicator species	a species used as a gauge for the condition of a particular habitat, community, or ecosystem. A characteristic or surrogate species for a community or ecosystem.
indigenous	native to an area
indigenous species	a species that, other than as a result of an introduction, historically occurred or currently occurs in a particular ecosystem
integrated pest management	(IPM) sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks
interpretive facilities	structures that provide information about an event, place, or thing by a variety of means, including printed, audiovisual, or multimedia materials, e.g., kiosks that offer printed materials and audiovisuals, signs, and trail heads
interpretive materials	any tool used to provide or clarify information, explain events or things, or increase awareness and understanding of the events or things, e.g., printed materials like brochures, maps or curriculum materials; audiovisual materials like video and audio tapes, films, or slides; interactive multimedia materials, CD-ROM or other computer technology
intertidal	the area of land along a shoreline that is exposed to air during low tide but covered by water during high tide
inundation	water covering normally dry land; coastal inundation due to sea level rise
invasive species	an alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health
inventory	a list of all the assets and liabilities of an organization, including physical, financial, personnel, and procedural aspects
invertebrate	any animal lacking a backbone or bony segment that encloses the central nerve cord
issue	<p>any unsettled matter that requires a management decision [e.g., a Service initiative, an opportunity, a management problem, a threat to the resources of the unit, a conflict in uses, a public concern, or the presence of an undesirable resource condition.]</p> <p>[N.B. A CCP should document, describe, and analyze issues even if they cannot be resolved during the planning process (FWS Manual 602 FW 1.4).]</p>

land protection plan	(LPP) a document that identifies and prioritizes lands for potential Service acquisition from a willing seller, and also describes other methods of providing protection. Landowners within project boundaries will find this document, which is released with environmental assessments, most useful
land trusts	organizations dedicated to conserving land by purchase, donation, or conservation easement from landowners
landform	the physical shape of the land reflecting geologic structure and processes of geomorphology that have sculpted the structure
landscape	a heterogeneous land area composed of a cluster of interacting ecosystems that are repeated in similar form throughout
landscape approach	an approach to managing for species communities that focuses on landscape patterns rather than processes, and manages landscape elements to collectively influence groups of species in a desired direction; this approach assumes that by managing a landscape for its components, the naturally occurring species will persist.
late-successional	species, assemblages, structures, and processes associated with mature natural communities that have not experienced significant disturbance for a long time
lethal	capable of causing death
letterboxing	involves the placement of a cache containing a stamp and an inkpad that participants use to document that they have discovered a specific location. Participants find the location by following clues offered on the Web site (www.letterboxing.org) involving map coordinates or compass bearings; letterboxing does not require leaving or removing caches as part of the challenge
limiting factor	an environmental limitation that prevents further population growth
limits of acceptable change	a planning and management framework for establishing and maintaining acceptable and appropriate environmental and social conditions; monitoring used to track key indicators of environmental impacts resulting from recreation and other uses
management alternative	a set of objectives and the strategies needed to accomplish each objective [FWS Manual 602 FW 1.4]
management concern	see “issue” and “migratory nongame birds of management concern”
management opportunity	see “issue”
management strategy	a general approach to meeting unit objectives [N.B. A strategy may be broad or may be detailed enough to guide implementation through specific actions, tasks, and projects (FWS Manual 602 FW 1.4).]
maritime	relating to the ocean
marshlands	areas interspersed with open water, emergent vegetation (hydrophytes), and terrestrial vegetation (phreatophytes)

matrix forming (or matrix community)	communities that form extensive and contiguous cover may be categorized as matrix (or matrix-forming) community types. Matrix communities occur on the most extensive landforms and typically have wide ecological tolerances. They may be characterized by a complex mosaic of successional stages resulting from characteristic disturbance processes (e.g., New England northern hardwood-conifer forests). Individual occurrences of the matrix type typically range in size from 2,000 to 500,000 hectares. In a typical ecoregion, the aggregate of all matrix communities covers, or historically covered, as much as 75 to 80 percent of the natural vegetation of the ecoregion. Matrix community types are often influenced by large-scale processes (e.g., climate patterns, fire), and are important habitat for wide-ranging or large area-dependent fauna, such as large herbivores and birds
mechanical transport	any device for moving people or material on, over, or through land, water, or air that has moving parts, provides a mechanical advantage to the user, and is powered by a living or nonliving power source. This includes, but is not limited to sailboats, hang gliders, parachutes, bicycles, carts, and wagons, but does not include wheelchairs when used by those whose disabilities require wheelchairs for locomotion, skis, snowshoes, rafts, canoes, sleds, travois, or similar devices.
mesic	a type of habitat characterized by a moderate or well-balanced supply of moisture
mesotrophic	a body of water (lake, pond, etc.) having a moderate amount of plant growth
migratory birds	species that generally migrate south each fall from breeding grounds to their wintering grounds and vice versa in the spring
migratory nongame birds of management concern	species of nongame birds that are believed to have undergone significant population declines, have small or restricted populations, or are dependent on restricted or vulnerable habitats
minimum tool	<p>an activity determined to be necessary to accomplish an essential task that makes use of the least intrusive tool, equipment, device, force, regulation, or practice that will achieve the wilderness management objective</p> <p>(N.B. This is not the same as the term “primitive tool,” which refers to the actual equipment or methods that make use of the simplest available technology, i.e., hand tools.</p>
mission statement	a succinct statement of the purpose for which the unit was established; its reason for being
mitigation	actions to compensate for the negative effects of a particular project, e.g., wetland mitigation usually restores or enhances a previously damaged wetland or creates a new wetland
motorized equipment	machines that use or are activated by a motor, engine, or other power source. This includes, but is not limited to motorized portable tools, chain saws, aircraft, snowmobiles, generators, motorboats, and motor vehicles, but does not include small, handheld portable devices such as shavers, wristwatches, flashlights, cameras, stoves, cellular telephones, radios, GPS units, or other similar small equipment or motorized wheelchairs when used by those whose disabilities require wheelchairs for locomotion.
National Environmental Policy Act of 1969	<p>(NEPA) requires all Federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in planning and implementing environmental actions</p> <p>[N.B. Federal agencies must integrate NEPA with other planning requirements and prepare appropriate NEPA documents to facilitate better environmental decision-making (cf. 40 CFR 1500).]</p>

National Wildlife Refuge System	(Refuge System) all lands and waters and interests therein administered by the Service as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas managed to preserve a national network for the conservation and management of fish, wildlife, and plant resources of the United States, for the benefit of present and future generations (National Wildlife Refuge System Improvement Act, 16 U.S.C. § 668dd)
native	a species that, other than as a result of an introduction, historically occurred or currently occurs in a particular ecosystem
native plant	a plant that has grown in the region since the last glaciation, and occurred before European settlement
natural disturbance event	any natural event that significantly alters the structure, composition, or dynamics of a natural community, e.g., floods, fires, and storms
natural range of variation	a characteristic range of levels, intensities, and periodicities associated with disturbances, population levels, or frequency in undisturbed habitats or communities
non-consumptive, wildlife-oriented recreation	wildlife observation and photography and environmental education and interpretation (see “wildlife-oriented recreation”)
non-lethal	not resulting in or capable of causing death
non-native species	see “exotic species”
nonpoint source pollution	a diffuse form of water quality degradation in which wastes are not released at one specific, identifiable point but from a number of points that are spread out and difficult to identify and control
notice of availability	(NOA) an announcement we publish in the <i>Federal Register</i> that we have prepared an environmental impact statement or an environmental assessment and that it is available for public review and comment
notice of intent	(NOI) an announcement we publish in the <i>Federal Register</i> that we will prepare and review an environmental impact statement [40 CFR 1508.22]
objective	see “unit objective”
obligate species	a species that must have access to a particular habitat type to persist
outdoor education	educational activities that take place in an outdoor setting
outdoor education project	any cooperative venture that combines financial and staff resources to develop outdoor education activities like labs, field trips, surveys, monitoring, or sampling
palustrine wetlands	“the Palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0%” —Cowardin et al. 1979

Partners for Wildlife Program	a voluntary, cooperative habitat restoration program among the Service, other government agencies, public and private organizations, and private landowners to improve and protect fish and wildlife habitat on private land while leaving it in private ownership
partnership	a contract or agreement among two or more individuals, groups of individuals, organizations, or agencies, in which each agrees to furnish a part of the capital or some in-kind service, e.g., labor, for a mutually beneficial enterprise
passive management	protecting and monitoring key resources and conducting baseline inventories to improve our knowledge of the ecosystem
payment in lieu of taxes	cf. Revenue Sharing Act of 1935, Chapter One, Legal Context
picnicking	when the primary purpose of a visitor coming to the refuge is to have an outing that includes eating a meal with others. Visitors are allowed to have a snack and replenish themselves while participating in wildlife-dependent recreational uses, but the refuge is not intended to be a destination for outdoor eating
point source	a source of pollution that involves discharge of waste from an identifiable point, such as a smokestack or sewage-treatment plant (Eckhardt, 1998)
population	an interbreeding group of plants or animals; the entire group of organisms of one species
population monitoring	assessing the characteristics of populations to ascertain their status and establish trends on their abundance, condition, distribution, or other characteristics
preferred alternative	the alternative determined by the decision-maker that best achieves the refuge's purpose, vision, and goals; contributes to the Refuge System mission; addresses the significant issues; and is consistent with principles of sound fish and wildlife management
prescribed fire	the application of fire to wildland fuels, either by natural or intentional ignition, to achieve identified land use objectives [FWS Manual 621 FW 1.7]
priority (general) public use	a compatible wildlife-dependent recreational use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation
private land	land owned by a private individual, group, or non-government organization
private organization	any non-government organization
proposed wilderness	an area of the Refuge System that the Secretary of the Interior has recommended to the President for inclusion in the National Wilderness Preservation System
protection	mechanisms like fee title acquisition, conservation easements, or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintaining species populations at a site (cf. "long-term ~")

public	individuals, organizations, and non-government groups; officials of Federal, State, and local government agencies; Native American Tribes, and foreign nations—includes anyone outside the core planning team, those who may or may not have indicated an interest in the issues, and those who do or do not realize that our decisions may affect them
public involvement	offering an opportunity to interested individuals and organizations whom our actions or policies may affect to become informed; soliciting their opinions. We thoroughly study public input, and give it thoughtful consideration in shaping decisions about managing refuges
public involvement plan	long-term guidance for involving the public in the comprehensive planning process
public land	land owned by the local, State, or Federal Government
rare species	species identified for special management emphasis because of their uncommon occurrence within a watershed
rare community types	plant community types classified as rare by any State program; includes exemplary community types
recharge	refers to water entering an underground aquifer through faults, fractures, or direct absorption
recommended wilderness	areas studied and found suitable for wilderness designation by both the Director (FWS) and Secretary (DOI), and recommended by the President to Congress for inclusion in the National Wilderness System [FWS Manual 610 FW 1.5 (draft)]
record of decision	(ROD) a concise public record of a decision by a Federal agency pursuant to NEPA [N.B. A ROD includes: <ul style="list-style-type: none"> • the decision • all the alternatives considered • the environmentally preferable alternative • a summary of monitoring and enforcement, where applicable, for any mitigation • whether all practical means have been adopted to avoid or minimize environmental harm from the alternative selected (or if not, why not).]
red tide	common name for a phenomenon more currently known as algal bloom that causes reddish discoloration of coastal ocean waters.
refuge goals	“descriptive, open-ended, and often broad statements of desired future conditions that convey a purpose but do not define measurable units” (Writing Refuge Management Goals and Objectives: A Handbook, FWS January 2004)
refuge purposes	“the terms ‘purposes of the refuge’ and ‘purposes of each refuge’ mean the purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit” (National Wildlife Refuge System Improvement Act of 1997)
refuge lands	lands in which the Service holds full interest in fee title or partial interest, like an easement

relatively intact	the conservation status category indicating the least possible disruption of ecosystem processes. Natural communities are largely intact, with species and ecosystem processes occurring within their natural ranges of variation
relatively stable	the conservation status category between vulnerable and relatively intact, in which extensive areas of intact habitat remain but local species declines and disruptions of ecological processes have occurred
restoration	management of a disturbed or degraded habitat that results in the recovery of its original state, e.g., restoration may involve planting native grasses and forbs, removing shrubs, prescribed burning, or reestablishing habitat for native plants and animals on degraded grassland
riparian	referring to the interface between freshwater habitats and the terrestrial landscape
riparian habitat	habitat along the banks of a stream or river [cf. note above]
riverine	within the active channel of a river or stream
riverine wetlands	generally, all the wetlands and deepwater habitats occurring within a freshwater river channel not dominated by trees, shrubs, or persistent emergents
runoff	water from rain, melted snow, or agricultural or landscape irrigation that flows over a land surface into a water body (cf. “urban runoff”)
scale	the magnitude of a region or process; refers to both spatial size, for example, a relatively small-scale patch or a relatively large-scale landscape, and a temporal rate, for example, relatively rapid ecological succession or relatively slow evolutionary speciation
Service presence	Service programs and facilities that it directs or shares with other organizations; public awareness of the Service as a sole or cooperative provider of programs and facilities
shrublands	habitats dominated by various species of shrubs, often with many grasses and forbs
sink population	a breeding group that does not produce enough offspring to maintain itself in future years without immigrants from other populations
site improvement	any activity that changes the condition of an existing site to better interpret events, places, or things related to a refuge, e.g., improving safety and access, replacing non-natives with native plants, refurbishing footbridges and trailways, renovating or expanding exhibits
source population	a population in a high-quality habitat where the birth rate greatly exceeds the death rate and the excess individuals emigrate
spatial frame	within an ecoregion, natural terrestrial communities may be categorized into three functional groups on the basis of their current or historical patterns of occurrence, as correlated with the distribution and extent of landscape features and ecological processes; these groups are identified as matrix communities, large patch communities, and small patch communities

special focus area	<p>an area of high biological value</p> <p>[N.B. We normally direct most of our resources to SFA's that were delineated because of</p> <ul style="list-style-type: none"> • the presence of federally listed endangered and threatened species, species at risk (formerly, "candidate species"), rare species, concentrations of migrating or wintering waterfowl, or shorebird stopover habitat • their importance as migrant landbird stopover or breeding habitat • the presence of unique or rare communities • the presence of important fish habitat.]
species	the basic category of biological classification intended to designate a single kind of animal or plant; any variation among the individuals may be regarded as not affecting the essential sameness that distinguishes them from all other organisms.
species assemblage	the combination of particular species that occur together in a specific location and have a reasonable opportunity to interact with one another
species at risk	<p>a general term referring to species listed under the Endangered Species Act (ESA), as well as for unlisted species that are declining in population; sometimes the term is used interchangeably with "species of concern." Such species, unless already listed under ESA, receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing (Source: http://www.fws.gov/endangered/esa-library/pdf/glossary.pdf (accessed October 2015))</p>
species of concern	<p>an informal term referring to a species that might be in need of conservation action; this may range from a need for periodic monitoring of populations and threats to the species and its habitat, to the necessity for listing as threatened or endangered under the Endangered Species Act. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing (Source: http://www.fws.gov/endangered/esa-library/pdf/glossary.pdf (accessed October 2015))</p>
species diversity	usually synonymous with "species richness," but may also include the proportional distribution of species
species richness	a simple measure of species diversity calculated as the total number of species in a habitat or community (Fiedler and Jain 1992)
stakeholder	individuals, groups, organizations, or agencies representing a broad spectrum of interests offering business, tourism, conservation, recreation, and historical perspectives
state agencies	natural resource agencies of State governments
state land	state-owned public land
state-listed species	a species listed as endangered, threatened, or a species of concern by a state
step-down management plan	a plan for dealing with specific refuge management subjects, strategies, and schedules, e.g., cropland, wilderness, and fire [FWS Manual 602 FW 1.4]

stopover site	habitat where birds rest and feed during migration
strategy	a specific action, tool, technique, or combination of actions, tools, and techniques for meeting unit objectives
strategic management	the continual process of inventorying, choosing, implementing, and evaluating what an organization should be doing
succession	the natural, sequential change of species composition of a community in a given area
surface water	all waters whose surface is naturally exposed to the atmosphere, or wells or other collectors directly influenced by surface water
sustainable development	<p>the attempts to meet economic objectives in ways that do not degrade the underlying environmental support system</p> <p>[N.B. There is considerable debate over the meaning of this term...we define it as “human activities conducted in a manner that respects the intrinsic value of the natural world, the role of the natural world in human well-being, and the need for humans to live on the income from nature’s capital rather than the capital itself.”]</p>
symbolic fencing	consisting of posts spaced approximately 50 feet apart, each post holds a 3-sided triangular sign (to discourage perching by avian predators) or a 4-sided rectangular sign that reads “Area Closed” or “Beach Closed.” No physical barriers connect the posts and they are removed at the end of each season.) Fiberrod posts (½-inch diameter) and string are used in the Monomoy Wilderness
terrestrial	living on land
territory	an area over which an animal or group of animals establishes jurisdiction
threatened species	a federally listed, protected species that is likely to become an endangered species in all or a significant portion of its range
tiering	incorporating by referencing the general discussions of broad topics in environmental impact statements into narrower statements of environmental analysis by focusing on specific issues [40 CFR 1508.28]
tributary	a stream or river that flows into a larger stream, river, or lake, feeding it water
trust resource	<p>a resource that the Government holds in trust for the people through law or administrative act</p> <p>[N.B. A Federal trust resource is one for which responsibility is given wholly or in part to the Federal Government by law or administrative act. Generally, Federal trust resources are nationally or internationally important no matter where they occur, such as endangered species or migratory birds and fish that regularly move across state lines. This also includes cultural resources protected by Federal historic preservation laws and nationally important or threatened habitats, notably wetlands, navigable waters, and public lands, e.g., state parks and national wildlife refuges.]</p>
turbidity	refers to the extent to which light penetrates a body of water; turbid waters are those that do not generally support net growth of photosynthetic organisms
unexploded ordnance	explosive weapons that did not explode when they were employed and still pose a risk of detonation

unit objective	desired conditions that must be accomplished to achieve a desired outcome [N.B. Objectives are the basis for determining management strategies, monitoring refuge accomplishments, and measuring their success. Objectives should be attainable, time-specific, and stated quantitatively or qualitatively (FWS Manual 602 FW 1.4).]
upland	dry ground (i.e., other than wetlands)
urban runoff	water from rain, melted snow, or landscape irrigation flowing from city streets and domestic or commercial properties that may carry pollutants into a sewer system or water body
virtual geocaching	utilizes handheld GPS devices, but the goal of the activity is different, and the activity can be enjoyed without placing a physical cache. Virtual caching provides GPS coordinates to existing points of interest, such as a facility, cultural feature, wayside exhibit, or object in a public area
vision statement	a concise statement of what the unit could achieve in the next 10 to 15 years
watchable wildlife program	a tool for meeting wildlife conservation goals while at the same time fulfilling public demand for wildlife-dependent recreational activities (other than sport hunting, sport fishing, or trapping) [N.B. A watchable wildlife program is one that helps maintain viable populations of all native fish and wildlife species by building an active, well-informed constituency for conservation.]
watershed	the geographic area that describes an area where all the water (subsurface and surface) converges in the same place, such as a particular river, stream, or body of water; a watershed includes both the land and the body of water into which the land drains
watershed networks	systems for sharing in a geographic area (see “watershed”) educational information, such as curriculum development projects, student activities, and ongoing data gathering; a combination of telecommunications and real-life exchanges of information
wetlands	transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. These areas are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. (Source: Cowardin et al. 1979)
wilderness	A wilderness, in contrast with those areas where humans and their own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by humans, where humans are visitors who do not remain. An area of wilderness is further defined to mean in the Wilderness Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of human work substantially unnoticeable; has outstanding opportunities for solitude or a primitive and unconfined type of recreation; has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value

wilderness study areas	<p>lands and waters identified by inventory as meeting the definition of wilderness and being evaluated for a recommendation to be included in the Wilderness System (cf. “recommended wilderness”)</p> <p>[N.B. A wilderness study area must meet these criteria</p> <ul style="list-style-type: none">• generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable• has outstanding opportunities for solitude or a primitive and unconfined type of recreation• has at least 5,000 contiguous, roadless acres, or sufficient size to make practicable its preservation and use in an unimpaired condition. (FWS Manual 610 FW 1.5 (draft)).]
wildfire	<p>a free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands [FWS Manual 621 FW 1.7]</p>
wildland fire	<p>every wildland fire is either a wildfire or a prescribed fire [FWS Manual 621 FW 1.3]</p>
wildlife-dependent recreational use	<p>a use of a national wildlife refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation (National Wildlife Refuge System Administration Act of 1966)</p>
wildlife management	<p>manipulating wildlife populations, either directly by regulating the numbers, ages, and sex ratios harvested, or indirectly by providing favorable habitat conditions, and alleviating limiting factors</p>
wildlife-oriented recreation	<p>recreational activities in which wildlife is the focus of the experience</p> <p>[“The terms ‘wildlife-dependent recreation’ and ‘wildlife-dependent recreational use’ mean a use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.”—National Wildlife Refuge System Improvement Act of 1997]</p>
wind turbine	<p>a machine for converting the kinetic energy of wind into mechanical energy, which is then converted to electricity.</p>